nitrogen is transformed into gas when it encounters the hot gases originating from the combustion chamber 12, which means that the mass flux thus added artificially helps to reduce the phenomenon of spontaneous separation. Once full thrust has been established, the nitrogen jet no longer penetrates into the body of the nozzle and it no longer has an influence on the operation of the engine. The stabilizing device is a ground-based device which is generally arranged downstream of the exit 8 of the nozzle and which requires no modification of the engine

IN THE CLAIMS:

Please enter the following amended claims:

2. (Three times amended) A rocket engine nozzle as clamed in claim 14, wherein the separation triggering elements comprise:

injection orifices positioned for injecting fluid through a wall of the nozzle body; and

at least two independent injection orifices being distributed over the perimeter of the wall of the nozzle body, each of the injection orifices constituting a discrete separation triggering element that induces a distinct zone of jet separation.

4. (Three times amended) A rocket engine nozzle as claimed in claim 14, wherein the injection orifices comprise at least two, which are symmetrically positioned around the circumference of said nozzle.

7. (Three times amended) A rocket engine nozzle as claimed in claim 6, said means for simultaneously injecting comprising:

a plurality of injectors situated at different distances from the throat for simultaneously injecting said fluid; and

a distributing device for selectively feeding said injectors at different cross sectional locations to take into account the variation of said distance of spontaneous separation of the flow as a function of altitude.

14. (Amended) A rocket engine nozzle comprising:

a combustion chamber;

a throat; and

a divergent nozzle body downstream of said throat, said nozzle body having an axis and a control system for controlling jet separation of a flow in the nozzle body, said flow being parallel to the axis of the nozzle body,

wherein said control system comprises,

at least two mutually spaced separation triggering elements positioned on at least one injection cross section of the divergent nozzle body that is perpendicular to the nozzle axis, and

a means for simultaneously injecting fluid through the at least two separation triggering elements of said at least one injection cross section of the divergent nozzle body, wherein said spacing of the separation triggering elements is sufficient for said injection through the at least two separation triggering elements to generate as many

D 22 distinct zones of jet separation as there are separation triggering elements from mutually spaced initiation points positioned in the divergent nozzle body, to form a three-dimensional separation of the flow.

Please add the following new claims:

D 23 Sub. E2 --15. (New) The rocket engine nozzle as claimed in claim 14, wherein the nozzle body is conical.--